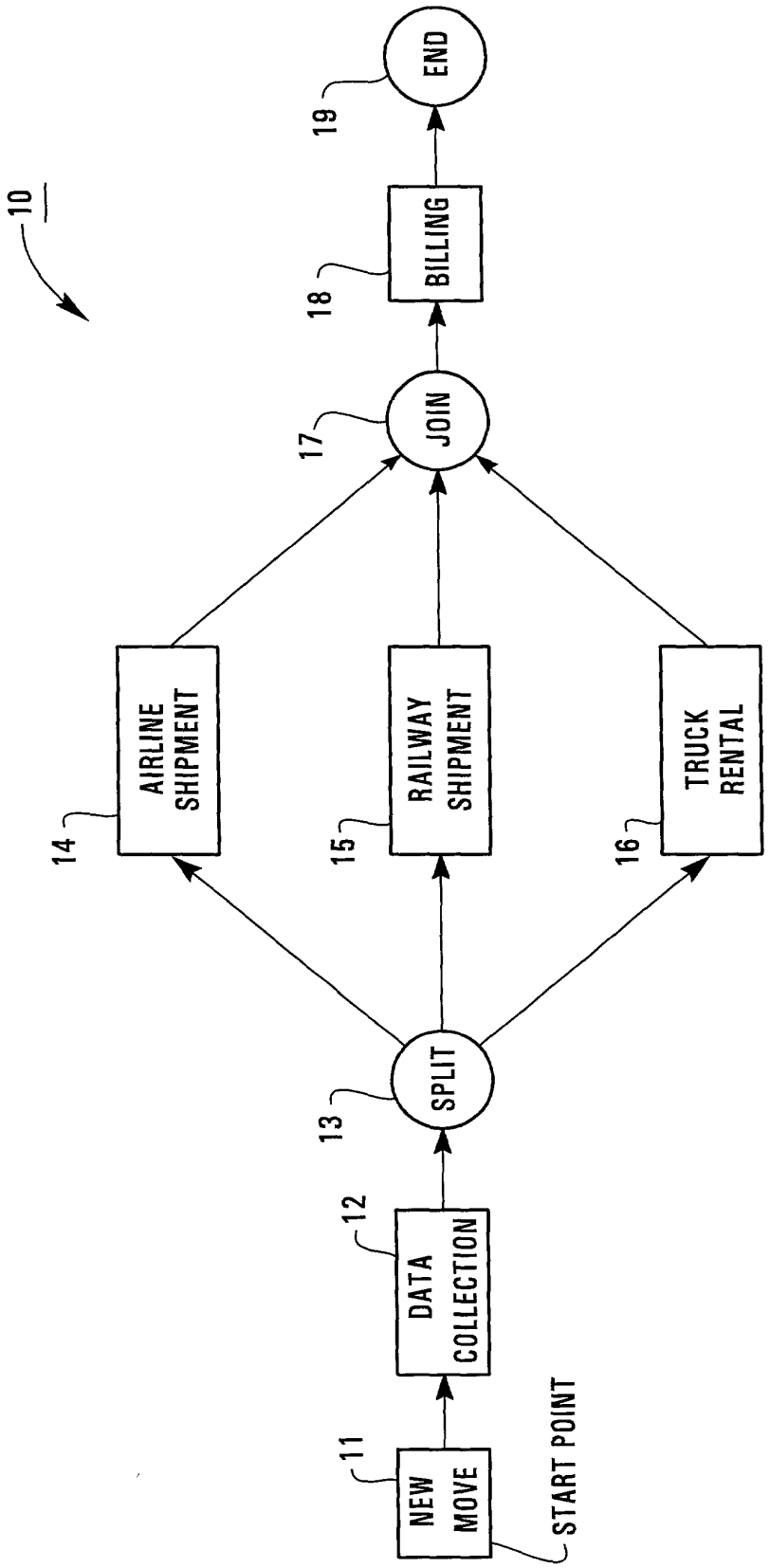

Figure 1 (PRIOR ART)

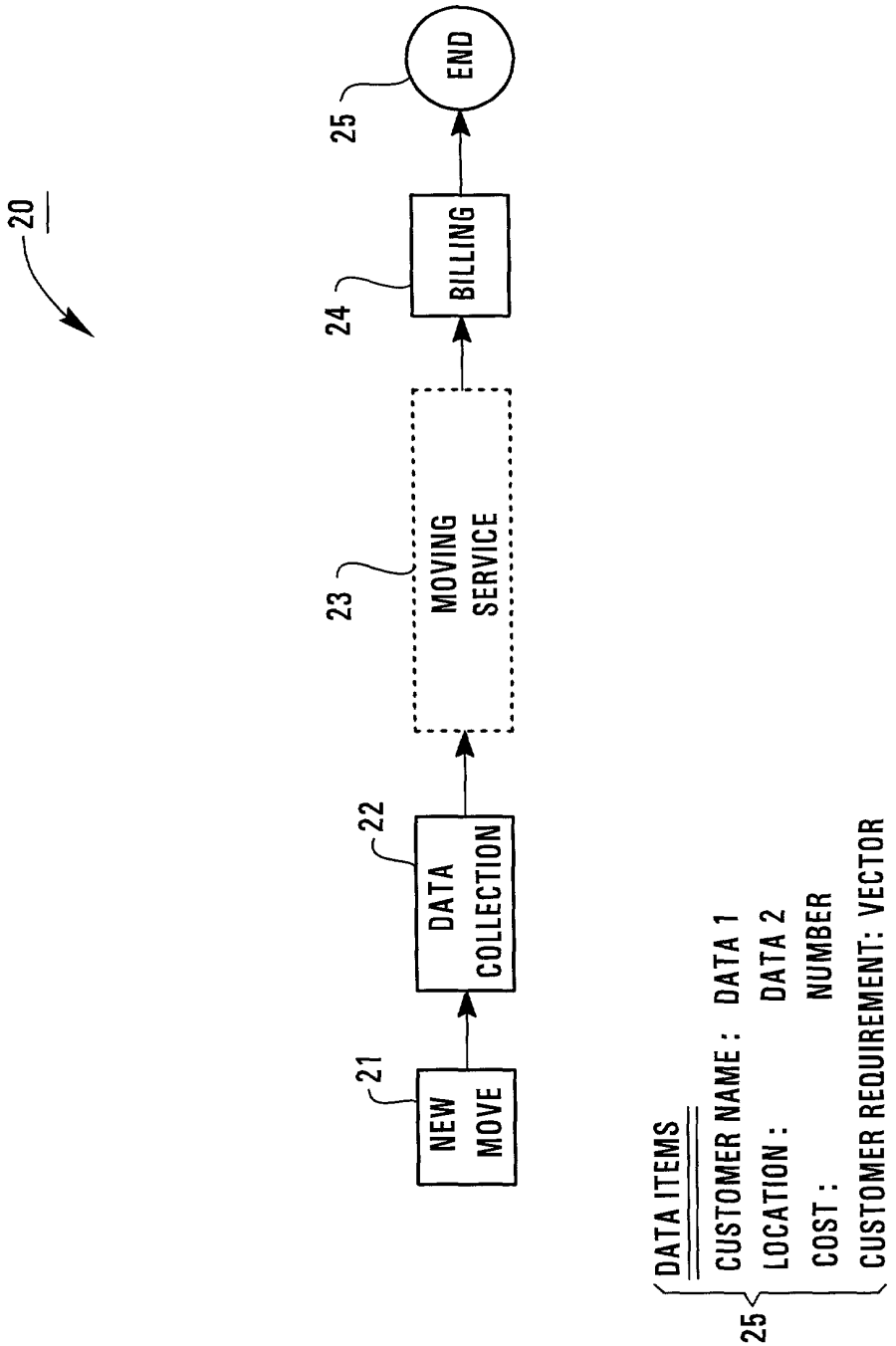
20
NEW MOVE
21
DATA COLLECTION
22
MOVING SERVICE
23
BILLING
24
END
25
DATA ITEMS
CUSTOMER NAME : DATA 1
LOCATION : DATA 2
COST : NUMBER
CUSTOMER REQUIREMENT: VECTOR
25

Figure 2

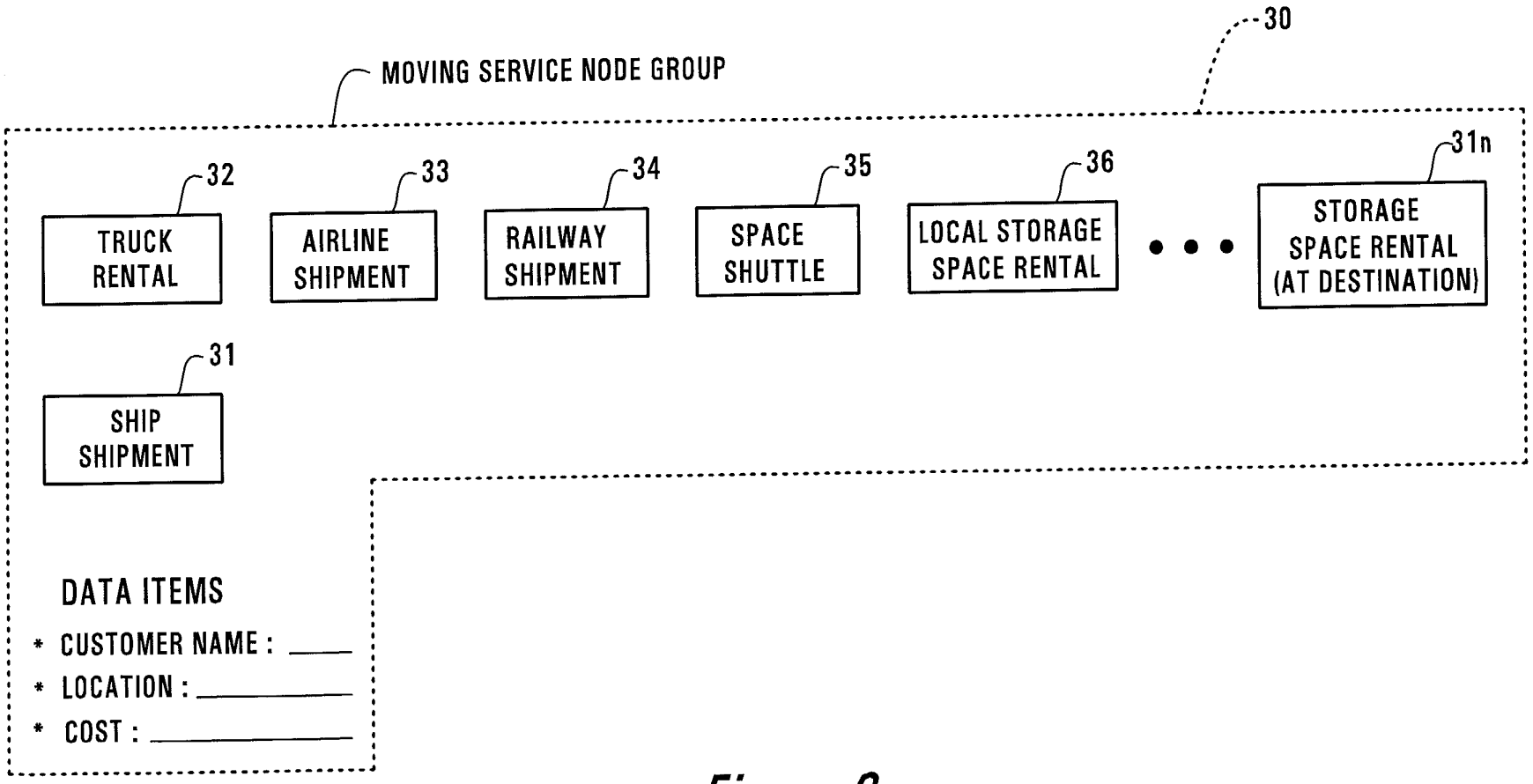
30
MOVING SERVICE NODE GROUP
32
TRUCK RENTAL
33
AIRLINE SHIPMENT
34
RAILWAY SHIPMENT
35
SPACE SHUTTLE
36
LOCAL STORAGE SPACE RENTAL
31n
STORAGE SPACE RENTAL (AT DESTINATION)
31
SHIP SHIPMENT
DATA ITEMS
* CUSTOMER NAME : ____
* LOCATION : ____
* COST : ____

Figure 3

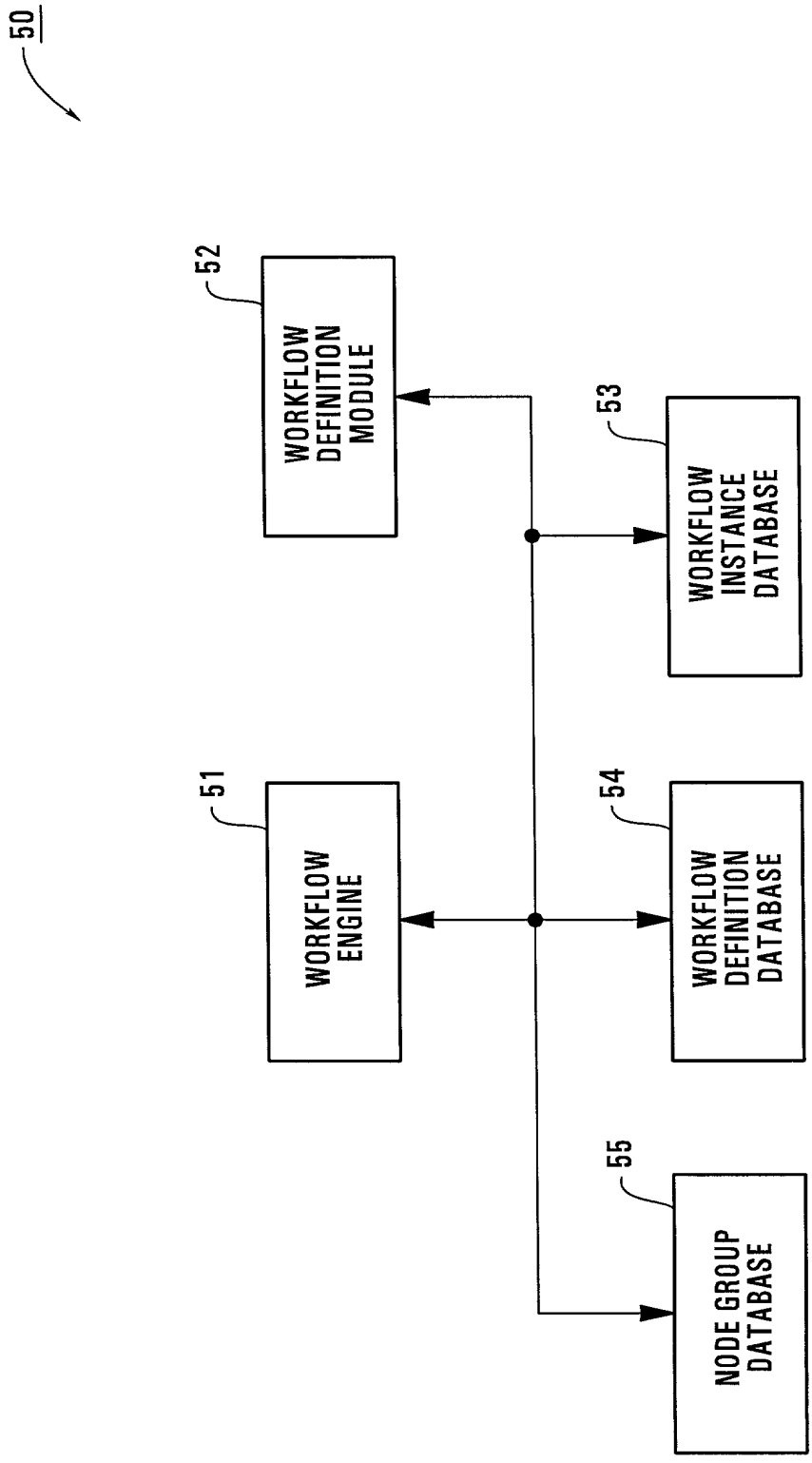
50
52
WORKFLOW DEFINITION MODULE
53
WORKFLOW INSTANCE DATABASE
51
WORKFLOW ENGINE
54
WORKFLOW DEFINITION DATABASE
55
NODE GROUP DATABASE

Figure 4

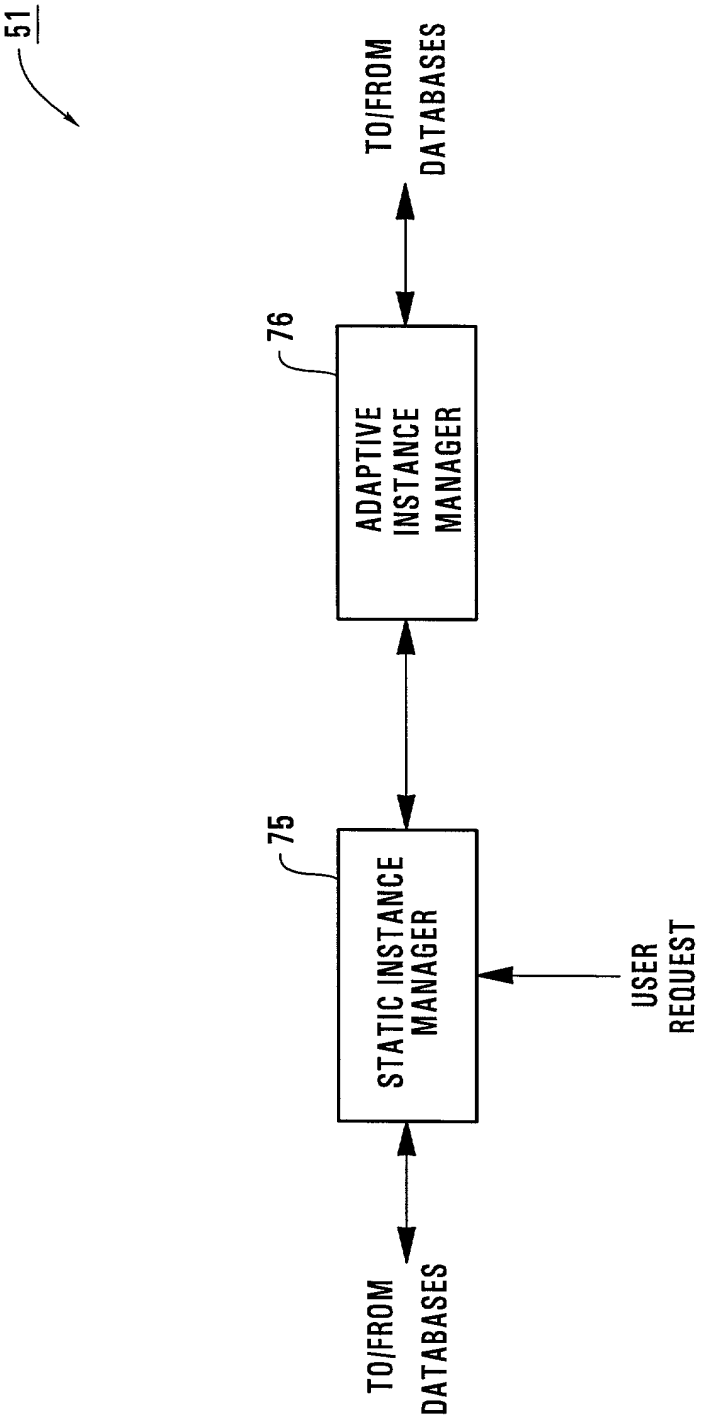
51
TO/FROM DATABASES
76
ADAPTIVE INSTANCE MANAGER
75
STATIC INSTANCE MANAGER
USER REQUEST
TO/FROM DATABASES

Figure 5

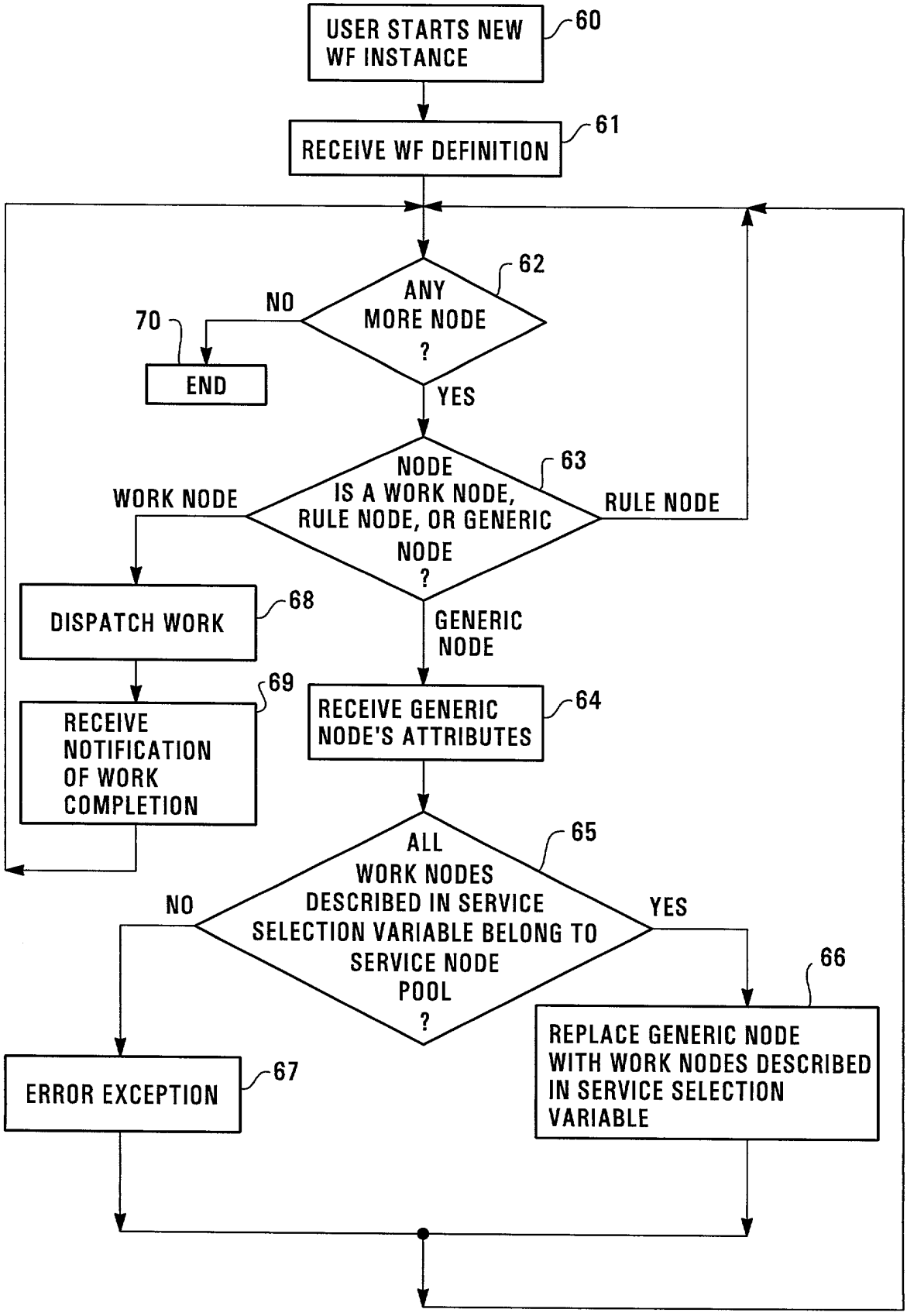
USER STARTS NEW WF INSTANCE
60
RECEIVE WF DEFINITION
61
ANY MORE NODE ?
62
NO
70
END
YES
NODE IS A WORK NODE, RULE NODE, OR GENERIC NODE ?
63
WORK NODE
RULE NODE
DISPATCH WORK
68
GENERIC NODE
RECEIVE NOTIFICATION OF WORK COMPLETION
69
RECEIVE GENERIC NODE'S ATTRIBUTES
64
ALL WORK NODES DESCRIBED IN SERVICE SELECTION VARIABLE BELONG TO SERVICE NODE POOL ?
65
NO
YES
ERROR EXCEPTION
67
REPLACE GENERIC NODE WITH WORK NODES DESCRIBED IN SERVICE SELECTION VARIABLE
66

Figure 6

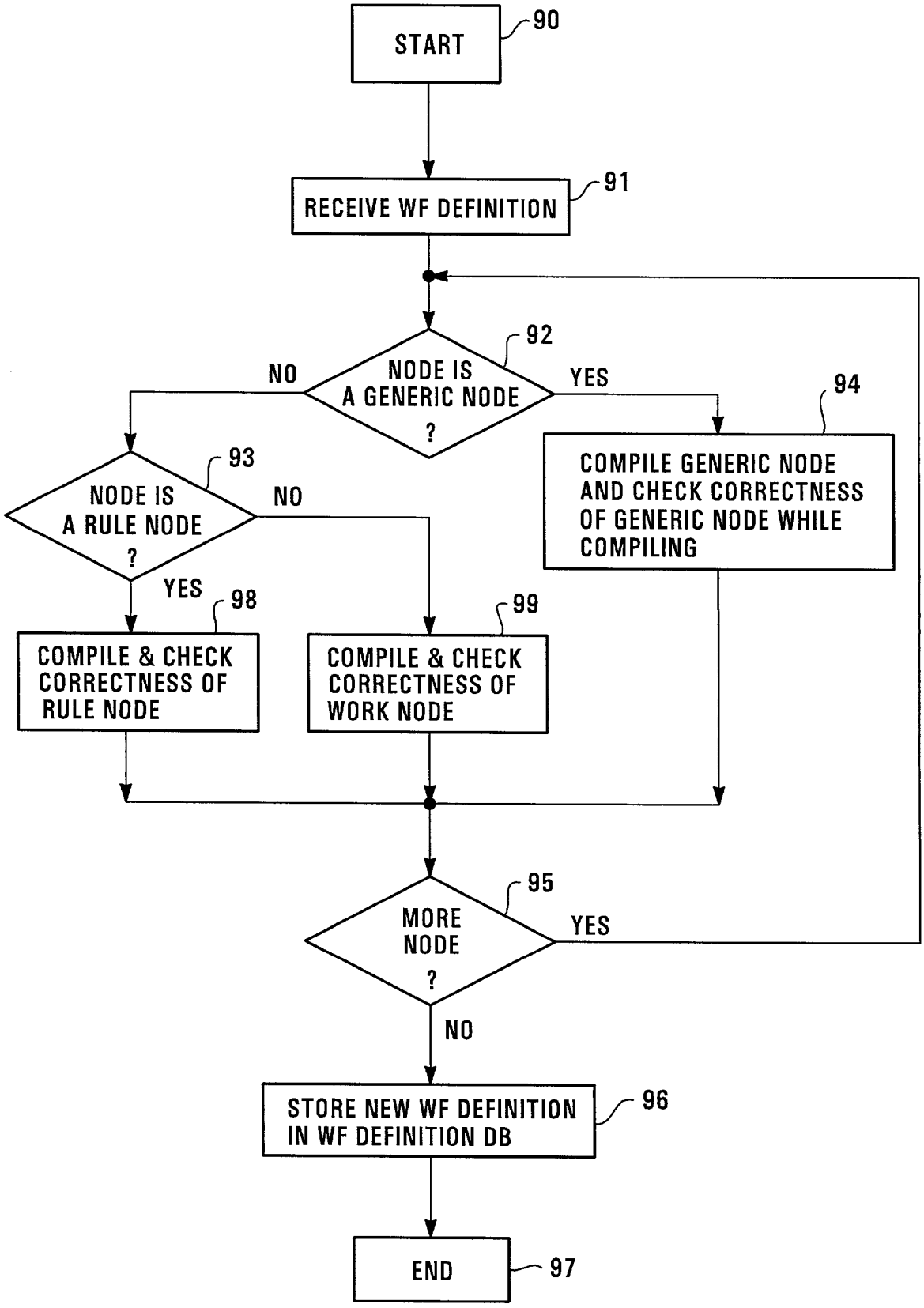
START
90
RECEIVE WF DEFINITION
91
NODE IS A GENERIC NODE ?
92
NO
YES
94
COMPILE GENERIC NODE AND CHECK CORRECTNESS OF GENERIC NODE WHILE COMPILING
NODE IS A RULE NODE ?
93
NO
YES
98
COMPILE & CHECK CORRECTNESS OF RULE NODE
99
COMPILE & CHECK CORRECTNESS OF WORK NODE
MORE NODE ?
95
YES
NO
STORE NEW WF DEFINITION IN WF DEFINITION DB
96
END
97

Figure 7

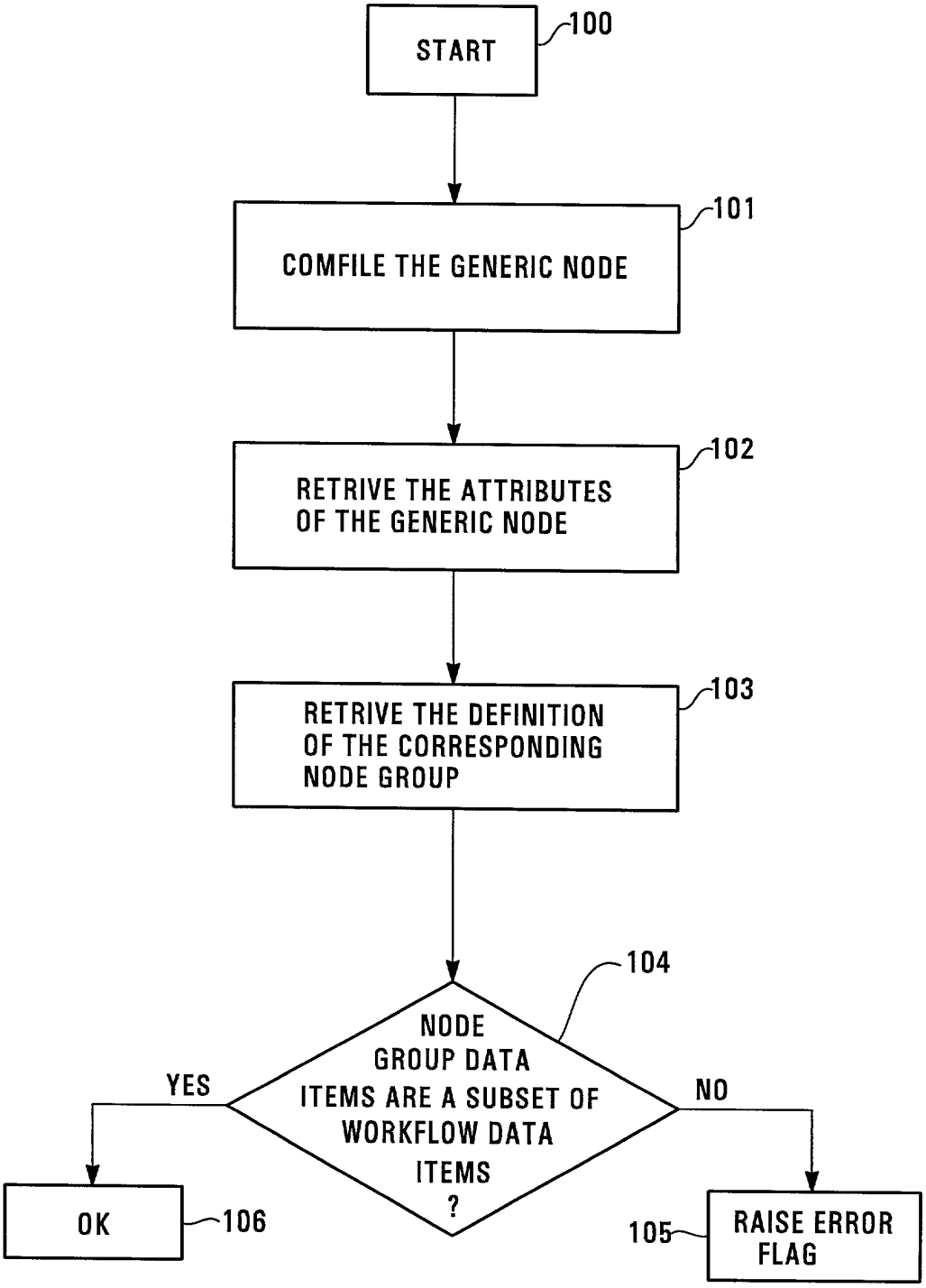
START
100
COMFILE THE GENERIC NODE
101
RETRIVE THE ATTRIBUTES OF THE GENERIC NODE
102
RETRIVE THE DEFINITION OF THE CORRESPONDING NODE GROUP
103
NODE GROUP DATA ITEMS ARE A SUBSET OF WORKFLOW DATA ITEMS ?
104
YES
NO
OK
106
105
RAISE ERROR FLAG

Figure 8